

**Abstract of the Disclosure**

**[0037]** A system and method for applying rotary percussive impacts to a drill bit, according to which an anvil is connected to the bit and a hammer is driven in one direction in the anvil when the bit encounters a relatively large load. Energy is stored during the movement of the hammer in the one direction and the stored energy is released to drive the hammer in a direction opposite the first direction to produce the percussive impacts.